

REMARKS

Claims 1-27 are pending in the present application. By this amendment, claims 1 and 16-17 are amended. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendments and the following remarks.

I. Formal Matters

Claim Objections

Claim 1 is objected to because the Office Action alleges that in view of the recitation “A portable method of real-time identification and verification...,” it is unclear how a method can be portable. The Office Action suggests canceling the language from the claim. Accordingly, the claim has been amended to remove the “portable” language from the recitation.

II. Prior Art Rejections

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze

Claims 1-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,222,152 to Fishbine et al. (hereinafter “Fishbine”) in view of United States Patent No. 6,320,974 to Glaze et al. (hereinafter “Glaze”). Applicants respectfully traverse this rejection.

As amended, claim 1 recites that a method of real-time identification and verification of the identity of a person comprises enhancing the fingerprint image; after enhancing the fingerprint image, transmitting fingerprint images that satisfy the predetermined fingerprint quality level to a central processor for processing; and receiving data from the central processor relating to the processed fingerprint image. Support for this amendment may be found at page 11, lines 24-28 of the specification.

Fishbine does not suggest a method of real-time identification and verification of the identity of a person as recited by claim 1 of the present invention. On the contrary, Fishbine discloses a portable fingerprint scanning apparatus for identification verification which optically scans and records fingerprint images and transmits the fingerprint images to a mobile unit for processing. Fishbine discloses that the fingerprint images are subsequently transmitted to a mobile unit and then to a central location, without

suggesting that prior to transmitting the fingerprint images to a central location, the fingerprint images are enhanced. Fishbine discloses that live scanning of fingerprints allows for image enhancement, if necessary, but fails to suggest that enhancement of fingerprint images occurs prior to transmission of the fingerprint image to a central location. Moreover, Fishbine does not suggest receiving data from the central location relating to the processed fingerprint image.

The Office Action relies on the teaching of Glaze to allegedly cure the above-noted deficiencies of Fishbine. However, like Fishbine, Glaze fails to teach or suggest a method of real-time identification and verification of the identity of a person comprising enhancing the fingerprint image, transmitting fingerprint images that satisfy the predetermined fingerprint quality level to a central processor for processing after enhancing the fingerprint image, and receiving data from the central processor relating to the processed fingerprint image. Instead, Glaze teaches a distributed biometric identification system having a plurality of stand-alone workstations which receive fingerprint data through a fingerprint scanner and search relevant databases stored in the workstations for information regarding the individual belonging to the scanned fingerprint. Glaze also teaches that periodically the fingerprint data is transmitted to a centralized INS server so that the INS server can update the latest information regarding individuals. However, unlike the method of claim 1 of the present invention, Glaze fails to teach or suggest that prior to transmitting the data to the centralized INS server, the fingerprint data is enhanced.

Moreover, Glaze teaches that the individual workstations include the data needed to perform the biodata searches after biodata is entered at the workstations and that the INS server periodically updates the workstations so that the workstations include the latest information regarding apprehended individuals. This is not analogous to the method of claim 1 because instead of transmitting the biodata to the INS server for processing, Glaze teaches that the workstations process the biodata. Moreover, Glaze fails to teach or suggest receiving data from the INS server relating to the processed biodata because Glaze does not teach that the biodata is transmitted to the INS server for processing. Instead, Glaze teaches that the INS server transmits updates to the workstations so that the workstations will have the latest information regarding apprehended individuals when processing the entered biodata.

For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine and Glaze fails to make obvious Applicants' claimed invention as embodied in independent claim 1. Since claims 2-9 depend from claim 1 and recite further claim features, Applicants submit that the combined teaching of Fishbine and Glaze fails to make obvious claims 2-9. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze and Further in View of Fuller

Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze and further in view of United States Patent No. 4,843,377 to Fuller et al. (hereinafter "Fuller"). Applicants respectfully traverse this rejection.

Claim 10 depends from Applicants' independent claim 1. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine and Glaze cannot make obvious Applicants' claimed invention embodied in independent claim 1. Since dependent claim 10 depends from independent claim 1, and recites further claim features, Applicants submit that claim 10 is also patentable over the combined teaching of Fishbine, Glaze, and Fuller. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze and Further in View of Smith

Claims 11-13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze and further in view of United States Patent No. 6,012,636 to Smith (hereinafter "Smith"). Applicants respectfully traverse this rejection.

Claims 11-13 depend from Applicants' independent claim 1. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine and Glaze cannot make obvious Applicants' claimed invention embodied in independent claim 1. Since dependent claims 11-13 depend from independent claim 1, and recite further claim features, Applicants submit that claims 11-13 are also patentable over the combined teaching of Fishbine, Glaze, and Smith. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze and Further in View of Fan

Claims 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze and further in view of United States Patent No. 6,552,682 to Fan (hereinafter “Fan”). Applicants respectfully traverse this rejection.

Claims 14 and 15 depend from Applicants’ independent claim 1. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine and Glaze cannot make obvious Applicants’ claimed invention embodied in independent claim 1. Since dependent claims 14 and 15 depend from independent claim 1, and recite further claim features, Applicants submit that claims 14 and 15 are also patentable over the combined teaching of Fishbine, Glaze, and Fan. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze and Further in View of Mark

Claims 16-18, 22, and 25-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze and further in view of United States Patent No. 5,583,933 to Mark (hereinafter “Mark”). Applicants respectfully traverse this rejection.

As amended, claim 16 recites that a portable apparatus for identification and verification of a fingerprint comprises a module operating within the processor for the enhancement of the fingerprint image prior to transmittal of the fingerprint image.

Fishbine does not suggest a portable apparatus for identification and verification of a fingerprint as recited by claim 16 of the present invention. In contrast, Fishbine discloses a portable fingerprint scanning apparatus including a fingerprint scanner which optically scans and records fingerprint images and a wireless transmitter which transmits the fingerprint images to a mobile unit for processing, which are subsequently transmitted to a mobile unit and then to a central location. Unlike the portable apparatus of claim 16, Fishbine fails to suggest that the portable fingerprint scanning apparatus includes a module operating within a processor for enhancement of the fingerprint image prior to transmittal of the fingerprint image. Instead, Fishbine discloses that the fingerprint

images are transmitted to a mobile unit and subsequently to a central location, without suggesting that prior to the transmittal, the fingerprint images are enhanced. Fishbine further discloses that live scanning of fingerprints allows for image enhancement, if necessary, but fails to suggest that enhancement of fingerprint images occurs prior to transmission of the fingerprint image to a central location.

The Office Action relies on the teaching of Glaze to allegedly cure the above-noted deficiencies of Fishbine. However, like Fishbine, Glaze fails to teach or suggest a portable apparatus for identification and verification of a fingerprint comprising a module operating within the processor for the enhancement of the fingerprint image prior to transmittal of the fingerprint image. Instead, Glaze teaches a distributed biometric identification system including a plurality of stand-alone workstations which receive fingerprint data through a fingerprint scanner and search relevant databases stored in the workstations for information regarding the individual belonging to the scanned fingerprint. Glaze also teaches that periodically the fingerprint data is transmitted by the workstations to a centralized INS server so that the INS server can update the latest information regarding individuals. However, unlike the system of claim 16 of the present invention, Glaze fails to teach or suggest that the stand-alone workstations include a module operating within a processor for the enhancement of the fingerprint data prior to transmittal of the fingerprint data.

The Office Action further relies on the teaching of Mark to allegedly cure the above-noted deficiencies of Fishbine and Glaze. However, like Fishbine and Glaze, Mark does not teach or suggest a portable apparatus for identification and verification of a fingerprint as recited by claim 16 of the present invention. Instead, Mark teaches an auto-dialer which can be used to store and supply biometric information to an access control device used for controlling access to a system by receiving a "live" fingerprint sample from a user and comparing biometric identification received from the auto-dialer to the live sample to determine if there is a match. If there is a match, Mark teaches that the user seeking access to the system is granted the requested access. Unlike the present invention which recites a portable apparatus for identification and verification of a fingerprint including a module operating within the processor for the enhancement of the fingerprint image prior to transmittal of the fingerprint image, Mark fails to teach or suggest that the auto-dialer or access control device includes a module operating within a

processor for the enhancement of the fingerprint sample prior to comparing the sample with biometric identification received from the auto-dialer. Therefore, similar to Fishbine and Glaze, Mark does not teach or suggest a portable apparatus as recited by claim 16 of the present invention.

For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine, Glaze and Mark fails to make obvious Applicants' claimed invention as embodied in independent claim 16. Since claims 17-18, 22, and 25-27 depend from claim 16 and recite further claim features, Applicants submit that the combined teaching of Fishbine, Glaze and Mark fails to make obvious claims 17-18, 22, and 25-27. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze in View of Mark and Further in View of Fujieda

Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze in view of Mark and further in view of United States Patent No. 6,011,860 to Fujieda et al. (hereinafter "Fujieda"). Applicants respectfully traverse this rejection.

Claim 19 depends from Applicants' independent claim 16. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine, Glaze, and Mark cannot make obvious Applicants' claimed invention embodied in independent claim 16. Since dependent claim 19 depends from independent claim 16, and recites further claim features, Applicants submit that claim 19 is also patentable over the combined teaching of Fishbine, Glaze, Mark, and Fujieda. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze in View of Mark and Further in View of Fuller

Claim 20 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze in view of Mark and further in view of Fuller. Applicants respectfully traverse this rejection.

Claim 20 depends from Applicants' independent claim 16. For at least the reasons given above, Applicants respectfully submit that the combined teaching of

Fishbine, Glaze, and Mark cannot make obvious Applicants' claimed invention embodied in independent claim 16. Since dependent claim 20 depends from independent claim 16, and recites further claim features, Applicants submit that claim 20 is also patentable over the combined teaching of Fishbine, Glaze, Mark, and Fuller. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze in View of Mark and Further in View of Smith

Claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze in view of Mark and further in view of Smith. Applicants respectfully traverse this rejection.

Claim 21 depends from Applicants' independent claim 16. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine, Glaze, and Mark cannot make obvious Applicants' claimed invention embodied in independent claim 16. Since dependent claim 21 depends from independent claim 16, and recites further claim features, Applicants submit that claim 21 is also patentable over the combined teaching of Fishbine, Glaze, Mark, and Smith. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a) Over Fishbine in View of Glaze in View of Mark and Further in View of Fan

Claims 23 and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fishbine in view of Glaze in view of Mark and further in view of Fan. Applicants respectfully traverse this rejection.

Claims 23 and 24 depend from Applicants' independent claim 16. For at least the reasons given above, Applicants respectfully submit that the combined teaching of Fishbine, Glaze, and Mark cannot make obvious Applicants' claimed invention embodied in independent claim 16. Since dependent claims 23 and 24 depend from independent claim 16, and recite further claim features, Applicants submit that claims 23 and 24 are also patentable over the combined teaching of Fishbine, Glaze, Mark, and Fan. Accordingly, Applicants respectfully request withdrawal of this rejection.

III. New Claims 28-29

New claims 28-29 are directed to further embodiments of Applicants' claimed invention. New independent claim 28 depends from claim 1 and is directed the step of enhancing the fingerprint image. Support for new claim 1 may be found at page 11, lines 26-28 of the specification.

New claim 29 is directed to a method of real-time identification and verification of the identity of a person comprising the step of capturing a facial image in varying illumination conditions ranging from bright sunlight to total darkness. Support for new claim 29 may be found, at least, at page 4, lines 11-28 of the specification and page 11, line 31 through page 12, line 16 of the specification.

Applicants respectfully submit that new claims 28-29 are patentable over the art of record for at least the reasons given above in regard to claim 1.

CONCLUSION

For at least these reasons, Applicants assert that the pending claims 1-27 are in condition for allowance. Applicants further assert that this response addresses each and every point of the Office Action, and respectfully request that the Examiner pass this application with claims 1-27 to allowance. Should the Examiner have any questions, please contact Applicants' undersigned attorney at 404.954.5033.

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Respectfully submitted,

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